



SEQUENCE LISTING

<110> Cahoon, Rebecca E.  
Fang, Yiwen  
Odell, Joan  
Weng, Zude

<120> Plant Myb Transcription Factor Homologs

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<151> 1998-December-02

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35 40 45

Arg Ala Ala Gly Leu Asn Arg Asn Gly Lys Ser Cys Arg Leu Arg Trp  
50 55 60

Leu Asn Tyr Leu Arg Pro Gly Val Arg Arg Gly Ser Ile Thr Ala Gly  
65 70 75 80

Glu Asp Thr Val Ile Arg Glu Leu His Ala Arg Trp Gly Asn Lys Trp  
85 90 95

Ser Lys Ile Ser Lys His Leu Pro Gly Arg Thr Asp Asn Glu Xaa Lys  
100 105 110

Asn Tyr Trp Arg Thr Arg Ile Gln Gln Glu Glu Gln Gln Gly Ala Lys  
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35 40 45

Cys Arg Leu Arg Trp Val Asn Tyr Leu His Pro Gly Leu Lys Arg Gly  
50 55 60

Arg Met Ser Pro His Glu Glu Arg Leu Ile Leu Glu Leu His Ala Arg  
65 70 75 80

Trp Gly Asn Arg Trp Ser Arg Ile Ala Arg Arg Leu Pro Gly Arg Thr  
85 90 95

Asp Asn Glu Ile Lys Asn Tyr Trp Arg Thr His Met Arg Lys Lys Ala  
100 105 110

Gln Glu Arg Lys Arg Asn Met Ser Pro Ser Ser Ser Ser Ser Leu  
115 120 125

Ser Tyr Gln Ser Gly Tyr Pro Asp Thr Pro Ser Ile Ile Gly Val Lys  
130 135 140

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35 40 45

Ala Leu Ala Arg Cys Ala Gly Leu Arg Arg Thr Gly Lys Ser Cys Arg  
50 55 60

Leu Arg Trp Leu Asn Tyr Leu Arg Pro Asp Leu Arg Arg Gly Asn Ile  
65 70 75 80

Thr Ala Gln Glu Gln Leu Leu Ile Leu Glu Leu His Ser Arg Trp Gly  
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Asn Arg Trp Ser Xaa Ile Ala Gln His Leu Gln Gly Gln Arg Gln Arg  
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Ala Ala Gly Leu Lys Arg Thr Gly Lys Xaa Cys Arg Leu Arg Trp Xaa
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Asn Tyr Leu Arg Pro Asp Val Lys Arg Gly Asn Phe Ser Ala Asp Glu
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His	His	Ser	His	Gln	Leu	Lys	Gly	Gly	Ala	Gln	Glu	Glu	Ala	Glu	Asn
35							40						45		

Asp	Asn	Asn	Lys	Pro	Glu	Leu	Arg	Arg	Gly	Pro	Trp	Thr	Val	Asp	Glu
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Arg	Leu	Arg	Trp	Leu	Asn	Tyr	Leu	Arg	Pro	Asp	Val	Lys	Arg	Gly	Asn
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Phe	Ser	Ala	Asp	Glu	Gln	Leu	Leu	Ile	Leu	Asp	Leu	His	Thr	Arg	Trp
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Gly	Asn	Arg	Trp	Ser	Lys	Ile	Ala	Gln	His	Leu	Pro	Gly	Arg	Thr	Asp
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180 185 190

Ala Asn Asp Asp Asp Glu Asp His His His Asn Leu Arg Leu Leu Val  
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Leu His His His Gln Ala Gln His Leu Gln Gln Ala Ala Ala Ala Ala  
210 215 220

Gly Gly Ala Ala Asn Asp Leu Ala Ala Gly Ala Tyr Asp Val Arg Gln  
225 230 235 240

Leu His Ala Leu Pro Ser Ser Gly Met Ala Ala Thr Ser Ser Ser Asp  
245 250 255

Ser Leu Ala Ser Glu Ser Tyr Asp Asp Gly Gly Leu Leu Phe Ala Asn  
260 265 270

Leu Arg Ala Gly Glu Met Leu Met Asp Gly Gly Asp Trp Ala Ala Gln  
275 280 285

Gln Glu Ala Asp Gln Gly Leu Trp Pro Pro Pro Pro Pro Pro Ser  
290 295 300

Asp Leu Asp Gln Ser Val Val Gln Ala Ala Gly Ala Gly Ala Gly Gln  
305 310 315 320

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Gly Arg Met Ser Pro Glu Glu Arg Met Val Val Gln Leu His Ala  
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Lys Leu Gly Asn Arg Trp Ser Arg Ile Ala Lys Ser Ile Pro Gly Arg  
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Thr Asp Asn Glu Ile Lys Asn  
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Ser Gly Leu Gln Arg Ser Gly Lys Ser Cys Arg Leu Arg Trp Val Asn  
35 40 45

Tyr Leu His Pro Gly Leu Lys Arg Gly Arg Met Ser Pro Glu Glu Glu  
50 55 60

Arg Met Val Val Gln Leu His Ala Lys Leu Gly Asn Arg Trp Ser Arg  
65 70 75 80

Ile Ala Lys Ser Ile Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
85 90 95

Trp Arg Thr His Leu Arg Lys Leu Lys Leu Lys Gln Gln Lys Gln Gln  
100 105 110

Gln Ser Asp Asp His His Asn Asp Asn Asp Asp Asp Asp Asp Arg Asn  
115 120 125

Ser Ser Ser Ser Ser Ser Asn Ser Asn Ser Asn Leu Gln Gln  
130 135 140

Gln Pro Gln Pro Glu Asp Glu Ser Ser Ala Ser Gly Ser Leu Gln Ala  
145 150 155 160

Gln His His Glu Asp Gln His Gln Leu Phe Leu His Pro Leu Trp Asn  
165 170 175

Asp Asp Ile Ile Val Asp Val Asp Cys Trp Ser Ser Ser Thr Asn Val  
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<213> Oryza sativa

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agcaggagga cctgcaactg gtatgcactg tccgcctgtt cggtgaccgc cgttgggatt 240  
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       20                  25                    30

Val Asn Tyr Ile Ala Ala His Gly Glu Gly Arg Trp Asn Ala Leu Ala  
       35                  40                    45

Arg Cys Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp  
       50                  55                    60

Leu Asn Tyr Leu Arg Pro Asp Val Arg Arg Gly Asn Met Thr Ala Glu  
       65                  70                    75                    80

Glu Gln Leu Leu Ile Leu Glu Leu His Gly Arg Trp Gly Asn Arg Trp  
       85                  90                    95

Ser Lys Ile Ala Gln His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys  
           100                     105                     110  
  
 Asn Tyr Trp Arg Thr Arg Val Gln Lys His Ala Lys His Leu Asn Cys  
           115                     120                     125  
  
 Asp Val Asn Ser Gln Gln Phe Lys Asp Leu Met Arg Tyr Leu Trp Met  
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   20                     25                     30  
  
 Gln Leu Leu Ile Leu Asp Leu His Ser Arg Trp Gly Asn Arg Trp Ser  
   35                     40                     45  
  
 Lys Ile Ala Gln His Leu Pro Gly Arg Thr Asp Asp Glu Ile Lys Asn  
   50                     55                     60  
  
 Tyr Trp Arg Thr Arg Val Gln Lys His Ala Lys Gln Leu Asn Cys Asp  
   65                     70                     75                     80  
  
 Val Asn Ser Lys Arg Phe Lys Asp Ala Met Lys Tyr Leu Trp Met Pro  
   85                     90                     95  
  
 Arg Leu Ala Glu Arg Ile His Ala Arg Ala Gly Ala Val Asp Asp Ser  
   100                    105                     110  
  
 Gly Asp Tyr Ser Asn Asn Asp Leu Ser Cys Val Ser Gly Val Thr Met  
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       20                  25                  30

Leu Val Asn Tyr Ile Ala Ala His Gly Glu Gly Arg Trp Asn Ser Leu  
       35                  40                  45

Ala Arg Ser Ala Xaa Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg  
       50                  55                  60

Trp Leu Asn Tyr Leu Arg Pro Asp Leu Arg Arg Gly Asn Ile Thr Pro  
       65                  70                  75                  80

Gln Glu Gln Leu Leu Ile Leu Glu Leu His Ser Arg Trp Gly Asn Arg  
       85                  90                  95

Trp Ser Lys Xaa Ala Gln His Leu Pro Gly Ser Thr Asp Asn Glu Xaa  
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Lys Asn Thr  
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 ggagaagctc atcgccacc tccaggctct cctcggcaac cggggcaac cgatnnctc 360  
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Trp Thr Pro Glu Glu Asp Leu Met Leu Val Ser Tyr Ile Gln Glu His  
       20                  25                         30

Gly Ala Gly Asn Trp Arg Ala Val Pro Thr Asn Thr Gly Leu Met Arg  
       35                  40                         45

Cys Ser Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Gly  
       50                  55                         60

Ile Lys Arg Gly Asn Phe Thr Glu Xaa Glu Glu Lys Leu Ile Val His  
       65                  70                         75                         80

Leu Gln Ala Leu Leu Gly Asn Arg Trp Ala Thr Xaa Xaa Ser Tyr Leu  
85 90 95

Pro Gly Xaa Asp Xaa Asn Xaa Ile Xaa Asn Thr Gly Asn Xaa His Leu  
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Xaa Lys Asn Ser Arg Xaa Cys Lys Pro Pro Glu Val Xaa Lys  
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acggcgccgg caactggcgc gccgtgccga cgaacacccgg gctgatgcgt tgcagcaaga 240  
gctgccggctt ccgggtggacq aactaccta gggcggggat caagcggggg aacttcaccg 300  
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<211> 323

<212> PRT

<213> Oryza sativa

<400> 26

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Gly Ala Gly Asn Trp Arg Ala Val Pro Thr Asn Thr Gly Leu Met Arg  
35 40 45

Cys Ser Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Gly  
50 55 60

Ile Lys Arg Gly Asn Phe Thr Glu Gln Glu Glu Lys Leu Ile Val His  
 65 70 75 80  
 Leu Gln Ala Leu Leu Gly Asn Arg Trp Ala Ala Ile Ala Ser Tyr Leu  
 85 90 95  
 Pro Glu Arg Thr Asp Asn Asp Ile Lys Asn Tyr Trp Asn Thr His Leu  
 100 105 110  
 Lys Lys Lys Leu Lys Lys Met Gln Ala Ala Gly Gly Glu Asp Ser  
 115 120 125  
 Gly Ala Ala Ser Glu Gly Gly Arg Gly Asp Gly Asp Gly Gly  
 130 135 140  
 Gly Lys Ser Val Lys Ala Ala Ala Pro Lys Gly Gln Trp Glu Arg Arg  
 145 150 155 160  
 Leu Gln Thr Asp Ile His Thr Ala Arg Gln Ala Leu Arg Asp Ala Leu  
 165 170 175  
 Ser Leu Asp His Pro Asp Pro Ser Pro Ala Thr Ala Ala Ala Ala  
 180 185 190  
 Thr Pro Ala Gly Ser Ser Ala Ala Tyr Ala Ser Ser Ala Asp Asn Ile  
 195 200 205  
 Ala Arg Leu Leu Gln Gly Trp Met Arg Pro Gly Gly Gly Gly  
 210 215 220  
 Asn Gly Lys Gly Pro Glu Ala Ser Gly Ser Thr Ser Thr Thr Ala Thr  
 225 230 235 240  
 Thr Gln Gln Gln Pro Gln Cys Ser Gly Glu Gly Ala Ala Ser Ala Ser  
 245 250 255  
 Ala Ser Ala Ser Gln Ser Gly Ala Ala Ala Ala Ala Thr Ala Gln Thr  
 260 265 270  
 Pro Glu Cys Ser Thr Glu Thr Ser Lys Met Ala Thr Gly Gly Ala  
 275 280 285  
 Gly Gly Pro Ala Pro Ala Phe Ser Met Leu Glu Ser Trp Leu Leu Asp  
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agaagacttg atcttngatc aactatatgg caaatcatgg ggaagggtgtt tggaaattctt 180

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Leu Ile Xaa Xaa Ile Asn Tyr Ile Ala Asn His Gly Glu Gly Val Trp  
20 25 30

Asn Ser Leu Ala Lys Ser Cys Trp Ser Gln Thr Tyr Arg Lys Asp Cys  
35 40 45

Arg Leu Xaa Trp Leu Asn Tyr Leu Arg Pro Asp Val Arg Arg Gly Asn  
50 55 60

Xaa Thr Pro Glu Gly Thr Thr Leu Ile Met Glu Leu His Ala Lys Trp  
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Asn Arg Trp Ser Lys Ile Ala Lys His Leu Pro Gly Arg Thr  
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aattcttgg ccaaagctgc tggctctaaa cgtaccggaa agagttgccg gctaagggtgg 240  
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agttgttgta ccaatgacaa caacaacagc attaactatt ggagcatgga ggatatctgg 660  
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20 25 30

Ala Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly  
35 40 45

Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
50 55 60

Arg Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu  
65 70 75 80

Ile Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala  
85 90 95

Lys His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg  
100 105 110

Thr Arg Ile Gln Lys His Ile Lys Gln Ala Glu Asn Phe Gln Gln Gln  
115 120 125

Ile Ser Asn Asn Ser Glu Ile Asn Asp His Gln Ala Ser Thr Ser His  
130 135 140

Val Ser Thr Met Ala Glu Pro Met Glu Thr Tyr Ser Pro Pro Phe Tyr  
145 150 155 160

Gln Gly Met Leu Glu Pro Phe Ser Ser Ile Gln Phe Pro Thr Ile Asn  
165 170 175

Pro Asp Gln Ser Ser Cys Cys Thr Asn Asp Asn Asn Ser Ile Asn  
180 185 190

Tyr Trp Ser Met Glu Asp Ile Trp Ser Met Gln Leu Leu Asn Gly Asp  
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nccggaaagga ctgataatga gattaagaac tactggagga caaggatcaa gaacanctca 360
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<211> 204
<212> PRT
<213> Glycine max

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Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly Leu  
 35 40 45

Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg  
 50 55 60

Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile  
 65 70 75 80

Met Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala Lys  
 85 90 95

His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg Thr  
 100 105 110

Arg Ile Gln Lys His Leu Lys Gln Ala Ser Ser Ser Phe Gln Gln Gln  
 115 120 125

Ser Ser Asn Ser Glu Ile Ile Tyr His Pro Gln Ala Cys Thr Ser Gln  
 130 135 140

Val Ser Thr Met Ala Gln Pro Ile Glu Thr Tyr Ser Pro Pro Ser Tyr  
 145 150 155 160

Gln Gly Met Leu Asp Pro Phe Ser Ile Gln Phe Pro Thr Asn Pro His  
 165 170 175

His Ser Ser Cys Cys Thr Asn Asp Asp Asp Asn Asn Asn Tyr Trp Ser  
 180 185 190

Met Glu Asp Ile Trp Ser Met Gln Leu Ala Asn Tyr  
 195 200

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35 40 45

Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg  
50 55 60

Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile  
65 70 75 80

Ile Glu Leu His Ala Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala Lys  
85 90 95

His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Arg Thr  
100 105 110

Arg Ile Gln Lys His Ile Lys Gln Ala Glu Thr Ser Gln Gln His Gly  
115 120 125

Asn Ser Ser Glu Asn Ser Asn Asn Asp His Gln Ala Ser Asn Ser Thr  
130 135 140

Ser Lys Val Ser Thr Met Ala His Pro Asn Glu Thr Phe Ser Ser Pro  
145 150 155 160

Ser Tyr Gln Ala Thr Phe Glu Pro Phe Gln Pro Gln Phe Leu Gln Ser  
165 170 175

Met Ile Asn Gln Val Val Val Pro Ala Thr Thr Thr Ile Gly Ala Ser  
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Arg Ile Ser Gly Arg Leu Cys Asn Tyr Ser Met Glu Ile Asn  
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Leu Lys Arg Asn Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu  
50 55 60  
Arg Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu  
65 70 75 80  
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85 90 95  
Lys His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr Trp Arg  
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Thr Arg Ile Gln Lys His Ile Lys Gln Ala Glu Asn Phe Gln Gln Gln  
115 120 125  
Ser Ser Asn Asn Ser Glu Ile Asn Asp His Gln Ala Ser Thr Ser His  
130 135 140  
Val Ser Thr Met Ala Glu Pro Met Glu Met Tyr Ser Pro Pro Cys Tyr  
145 150 155 160  
Gln Gly Met Leu Glu Pro Phe Ser Thr Gln Phe Pro Thr Ile Asn Pro  
165 170 175  
Asp Gln Ser Ser Cys Cys Thr Asn Asp Asn Asn Ile Asn Tyr Trp  
180 185 190

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His	Gly	Gly	Val	Trp	Asn	Ser	Leu	Ala	Lys	Ala	Ser	Gly	Leu	Lys	
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Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn	Phe	Trp	Arg	Thr	Arg
			100				105				110				
Ile	Gln	Lys	His	Ile	Lys	Gln	Ala	Glu	Thr	Ser	Gln	Gln	His	Gly	Asn
			115				120				125				
Ser	Glu	Asn	Asn	Asp	His	Gln	Ala	Ser	Thr	Ser	Thr	Ser	Lys	Val	Ser
			130				135				140				
Thr	Met	Ala	His	Pro	Asn	Glu	Thr	Phe	Ser	Pro	Pro	Ser	Tyr	Gln	Gly
			145				150			155			160		

Thr	Phe	Glu	Pro	Phe	Gln	Pro	Gln	Phe	Pro	Thr	Ile	Thr	Asp	Gln	Ser				
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Ser	Cys	Cys	Thr	Thr	Thr	Asn	Asp	Asn	Asn	Asn	Tyr	Trp	Ser	Ile	Glu				
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Glu	Glu	Asp	Thr	Ile	Leu	Val	Asn	Tyr	Ile	Ala	Thr	His	Gly	Glu	Gly				
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His	Trp	Asn	Ser	Val	Ala	Arg	Cys	Ala	Gly	Leu	Arg	Arg	Ser	Gly	Lys				
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Ser	Cys	Arg	Leu	Arg	Trp	Leu	Asn	Tyr	Leu	Arg	Pro	Asp	Val	Arg	Arg				
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Gly	Asn	Ile	Thr	Leu	Gln	Glu	Gln	Ile	Leu	Ile	Leu	Asp	Leu	His	Ser				
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Arg	Trp	Gly	Asn	Arg	Trp	Ser	Lys	Ile	Ala	Gln	Gln	Leu	Pro	Gly	Arg				
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Thr	Asp	Asn	Glu	Ile	Lys	Asn	Tyr	Trp	Arg	Thr	Arg	Val	Ile	Lys	Gln				
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Ala Lys Gln Leu Lys Cys Asp Val Asn Ser Lys Gln Phe Arg Asp Thr  
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Leu Arg Tyr Val Trp Met Pro Arg Leu Leu Glu Arg Leu Gln Pro Thr  
 145 150 155 160

Ser Gln Ala Leu Glu Pro Asn Gln Ser Gly Leu Val Leu His Ala Ser  
 165 170 175

Ser Ser Leu Leu Pro Ser Asn Ser Asp His Ser Ile Glu Arg Gly Ser  
 180 185 190

Asp Leu Trp Pro Gly Phe Asn Asn Gln Met Leu Leu Glu Gln Gly Ser  
 195 200 205

Gly Gly Asp Leu Leu Glu Ser Leu Trp Asp Asp Asp Asn Met Cys Phe  
 210 215 220

Leu Gln Gln Leu Ser Tyr Asp Leu Gln Met Lys  
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His Tyr Ile Ala Arg His Gly Glu Gly Arg Trp Asn Met Leu Ala Lys  
 35 40 45

Ser Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu  
 50 55 60

Asn	Tyr	Leu	Lys	Pro	Asp	Ile	Lys	Arg	Gly	Asn	Leu	Thr	Pro	Gln	Glu
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Gln	Leu	Leu	Ile	Leu	Glu	Leu	His	Ser	Lys	Trp	Gly	Asn	Arg	Trp	Ser
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Lys	Ile	Ala	Gln	His	Leu	Pro	Gly	Arg	Thr	Asp	Asn	Glu	Ile	Lys	Asn
					100			105					110		
Tyr	Trp	Arg	Thr	Arg	Ile	Gln	Lys	Gln	Ala	Arg	Gln	Leu	Asn	Ile	Glu
					115			120				125			
Ser	Gly	Ser	Lys	Arg	Phe	Ile	Asp	Ala	Xaa	Lys	Cys	Phe	Trp	Met	Pro
					130		135				140				
Arg	Leu	Leu	Gln	Lys	Met	Glu	Gln	Ser	Asn	Ser	Pro	Ser	Pro	His	His
					145		150			155				160	
Ser	Ser	Met	Thr	Asn	Met	Met	Asn	Leu	Gly	Asn	Ser	Gly	Glu	Ala	Ser
					165			170					175		
Met	Ser	Ser	Met	Ser	Ser	Phe	Asn	Ile	Asn	Pro	Ser	Met	Ser	Ser	
					180			185				190			
Ser	Ser	Ser	Pro	Pro	Lys	Gly	Asn	Leu	Leu	Trp	Met	Met	Pro	Asn	His
					195			200				205			
Phe	Lys	Tyr	Tyr	Val	Gln	Pro	His	Gln	Ser	Ile	Pro	Arg	Phe	Leu	Pro
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35 40 45

Leu Ala Leu Ser Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu  
50 55 60

Arg Trp Leu Asn Tyr Leu Arg Pro Asp Val Arg Arg Gly Asn Ile Thr  
65 70 75 80

Leu Glu Glu Gln Leu Leu Ile Leu Glu Leu His Ser Arg Trp Gly Asn  
85 90 95

Arg Trp Ser Lys Ile Ala Gln Tyr Leu Pro Gly Arg Thr Asp Asn Glu  
100 105 110

Ile Lys Asn Tyr Trp Arg Thr Arg Val Gln Lys His Ala Lys Gln Leu  
115 120 125

Lys Cys Asp Val Asn Ser Lys Gln Phe Lys Asp Thr Met Arg Tyr Ile  
130 135 140

Trp Met Pro Arg Leu Val Glu Arg Ile Gln Ala Thr Ala Ala Ser  
145 150 155 160

Ala Pro Gln Pro Val Thr Val Pro Pro Arg Pro Thr Met His Thr Pro  
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Thr Glu Ala Thr Leu Ile Thr Thr Asn Ser Arg Phe Thr Ile Thr Arg  
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Ala Lys Trp Gly  
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 Leu Ala Leu Ser Ala Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu  
 50 55 60  
 Arg Trp Leu Asn Tyr Leu Arg Pro Asp Val Arg Arg Gly Asn Ile Thr  
 65 70 75 80  
 Leu Glu Glu Gln Leu Leu Ile Leu Glu Leu His Ser Arg Trp Gly Asn  
 85 90 95  
 Arg Trp Ser Lys Ile Ala Gln Tyr Leu Pro Gly Arg Thr Asp Asn Glu  
 100 105 110  
 Ile Lys Asn Tyr Trp Arg Thr Arg Val Gln Lys His Ala Lys Gln Leu  
 115 120 125  
 Lys Cys Asp Val Asn Ser Lys Gln Phe Lys Asp Thr Met Xaa Tyr Leu  
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 Xaa Xaa Xaa Lys Ala Arg Gly Thr His Ser Ser Ser Gly Asp Gly Pro  
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 Arg Asn His His Arg Asn Cys Gly Arg His Gln Gln Cys Ile His Leu  
 165 170 175  
 Arg Xaa Gln Pro Tyr Thr Thr Lys Phe Glu Val Leu Asn His Lys Gly  
 180 185 190  
 Arg Met Gly Leu Thr Asp Pro Ser Val Ala Asn Asn Asp Phe Val Gly  
 195 200 205  
 Ser His Val Thr Gln Arg Tyr Pro Thr Pro Glu Asn Ser Ser Thr Gly  
 210 215 220  
 Ala Ser Ser Ser Asp Ser Phe Gly Thr Gln Val Ser Thr Ile Ser Asp  
 225 230 235 240  
 Leu Thr Glu Asn Ser Ser Val Pro Glu Asn Thr Asn Ser Ala Asp Tyr  
 245 250 255  
 Tyr Gln Pro Ser Gln Ile Ser Asn Tyr Ser Asp Asn Cys Ile Thr Ser  
 260 265 270  
 Pro Ser Gly Phe Leu Phe Pro Gln Gly Leu Asp Leu Gln Ser Met Asp  
 275 280 285  
 Pro Asn Thr Pro Trp Asn Met Gln Ser Gly Asp Ser Ser Asp Asn Phe  
 290 295 300

Trp Asp Val Glu Ser Met Leu Phe Leu Glu Gln Gln Leu Met Asn Asp  
305 310 315 320

Asn Met

<210> 47  
<211> 1181  
<212> DNA  
<213> Glycine max

<400> 47  
tttcagttag tgagaatagc catgtctact tcaaagagcg tcagcagttc tagtgaagat 60  
gacaatgaac tttagaagagg gccttgact ctggaaaggagg ataaacttgct ctcccaatat 120  
attttaatc atggggagg gcgatggaa ttgctggcta aacgttcagg attaaagaga 180  
actggggaaaa gttgcagatt aaggtggcta aattatctaa agccagatgt aaaacgggga 240  
aatttaaccc cacaagagca acttataatt ctgtacttcc actcaaagtg gggaaacagg 300  
tggtaaaaaa ttgcacaaca ttgccaggc agaacagaca atgaaaatcaa gaactattgg 360  
agaacttagga ttcatggaaaca agcaagacat ttgaaaatcc acactgacag cagagagttt 420  
caagaacttg tttaggcgtt ctggatgcct agattgcctc agaaagcaaa agaatcatct 480  
tcttcaaaaaa tgtcaattca aaaccaggca attcctatgc ctttgattt tgtttctcag 540  
catattaactg ttgggaccat acctccttgg cagggacctt gtatgaatga agctggccc 600  
acttacatgg accaacatga gcagactcag actcggaca ccaacaatgg ttcatgcattc 660  
tccttgcctg agtcagcaaa tattccaaaa gtgcctcagc attttggaca caccaccatc 720  
acccaatttc atgccttggaa taccaatgac tttggcacct tcacatatga aggttataat 780  
gtaaaacaaca atgtctatga gatggacaac ttcaaaaacga ctactacatg ggtggctgag 840  
gatgcgcaat acccaatttg tgattgtcaa atggtagaa gcaattgggt aaacaacgat 900  
tttgcattgt acatgtggaa catggatgaa ctgtggcagt ttagcaagtt aaaaaataaa 960  
gatttttaggg ttttgcatttt tttggataaa cccaaagtcc aaaactctt ctttgatgac 1020  
gttattattt gtttatcatgaa ctgtggatta gctaccgaat taattaatac agatggcgat 1080  
tgttttctgt acatctgtct tgtattactc tggtcagata agtactttt gtaatttgtat 1140  
tgattgagaa aagtcatcaa ttagtacta gtacaaaaaa a 1181

<210> 48  
<211> 312  
<212> PRT  
<213> Glycine max

<400> 48  
Met Ser Thr Ser Lys Ser Val Ser Ser Ser Ser Glu Asp Asp Asn Glu  
1 5 10 15

Leu Arg Arg Gly Pro Trp Thr Leu Glu Glu Asp Asn Leu Leu Ser Gln  
20 25 30

Tyr Ile Phe Asn His Gly Glu Gly Arg Trp Asn Leu Leu Ala Lys Arg  
35 40 45

Ser Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn  
50 55 60

Tyr Leu Lys Pro Asp Val Lys Arg Gly Asn Leu Thr Pro Gln Glu Gln  
65 70 75 80

Leu Ile Ile Leu Glu Leu His Ser Lys Trp Gly Asn Arg Trp Ser Lys  
85 90 95

Ile Ala Gln His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
100 105 110

Trp Arg Thr Arg Ile Gln Lys Gln Ala Arg His Leu Lys Ile Tyr Thr  
 115 120 125  
 Asp Ser Arg Glu Phe Gln Glu Leu Val Arg Arg Phe Trp Met Pro Arg  
 130 135 140  
 Leu Leu Gln Lys Ala Lys Glu Ser Ser Ser Asn Met Ser Ile Gln  
 145 150 155 160  
 Asn Gln Ala Ile Pro Met Pro Phe Asp Tyr Val Ser Gln His Leu Thr  
 165 170 175  
 Val Gly Thr Ile Pro Pro Trp Gln Gly Pro Cys Met Asn Glu Ala Gly  
 180 185 190  
 Pro Thr Tyr Met Asp Gln His Glu Gln Thr Gln Thr Arg Asn Thr Asn  
 195 200 205  
 Asn Gly Ser Cys Ile Ser Leu Ser Glu Ser Ala Asn Ile Pro Lys Val  
 210 215 220  
 Pro Gln His Phe Gly His Thr Thr Ile Thr Gln Phe His Ala Leu Asn  
 225 230 235 240  
 Thr Asn Asp Phe Gly Thr Phe Thr Tyr Glu Gly Tyr Asn Val Asn Asn  
 245 250 255  
 Asn Val Tyr Glu Met Asp Asn Phe Lys Thr Thr Thr Thr Trp Val Ala  
 260 265 270  
 Glu Asp Ala Gln Tyr Pro Ile Gly Asp Cys Gln Met Val Gly Ser Asn  
 275 280 285  
 Trp Val Asn Asn Asp Phe Ala Cys Asn Met Trp Asn Met Asp Glu Leu  
 290 295 300  
 Trp Gln Phe Ser Lys Leu Gln Lys  
 305 310

<210> 49  
 <211> 1186  
 <212> DNA  
 <213> Glycine max

<400> 49  
 aattcggcac gaggccatgt ctacttcaaa gagcgtcagc agttcttagtg aagatgacaa 60  
 tgaacttaga agagggcctt ggactcttga agaggataat ttgctctccc aatataatttc 120  
 tagtcatgga gaagggcgat ggaatttgct agctaaacgt tcaggattaa agcgaactgg 180  
 gaaaagttgc agattaaggt ggctaaattta tctaaagcca gatgtaaaac ggggaaattt 240  
 aaccccacaa gagcaactta taatcctcga actccactca aagtggggaa acagggggc 300  
 aaaaattgca caaaatttgc caggcagaac agacaatgaa atcaagaact attggagaac 360  
 taggatttcag aaacaagcaa gacattgaa aattgacact gacaccagag agtttcagga 420  
 acttgttagg cgtttcttggc tgccctagatg cttcaaaaaag cccaaagaatc atcttcttca 480  
 gccatgtcaa ttcaaaacca ggcaactcct atgccttttgc atgggtttc tcagcattca 540  
 actgttggga ccataccatc acattcacac accccttggc agggaccttgc tatgaatgaa 600  
 gctggtccca cttacatggc ccaacatgag cagaactcag actctgaaca caacaatgg 660  
 tcatgcatct ccttgcgttgc gtcagcaaat tttccaaaaag tgccctcagca ttttggacgc 720  
 accaccatca cccaaatatca tgcccttgaat aacaatgact ttggcacctt cacatatgac 780  
 ggctacaatg taagcaacaa tgtctatgag atggacaact tcaaaaacgcc tactacaagg 840  
 gtggctgagg atgcgcaata cccaaactggc gattgtcaaa tggtaggaag caattgggtt 900

aacagcgatt ttgcatgtaa catgtggaac atggatgaat tggcaatt tagcaagtta 960  
caaaaataag attttagggt ttgggtttt tggagttacc aagactctat cttgggtat 1020  
gttattattg ttatcatgaa ctgttgatta gctactacca aattaattaa tacagatgg 1080  
gattgtttc tgtacatctg tttgcatta ctctgtttg caatttgtat tgattgagaa 1140  
aagtcatcaa ttagtcacta gttcaaaaaca caaaaaaaaaaaaaaa 1186

<210> 50  
<211> 192  
<212> PRT  
<213> Glycine max

<400> 50  
Met Ser Thr Ser Lys Ser Val Ser Ser Ser Glu Asp Asp Asn Glu  
1 5 10 15

Leu Arg Arg Gly Pro Trp Thr Leu Glu Glu Asp Asn Leu Leu Ser Gln  
20 25 30

Tyr Ile Ser Ser His Gly Glu Gly Arg Trp Asn Leu Leu Ala Lys Arg  
35 40 45

Ser Gly Leu Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn  
50 55 60

Tyr Leu Lys Pro Asp Val Lys Arg Gly Asn Leu Thr Pro Gln Glu Gln  
65 70 75 80

Leu Ile Ile Leu Glu Leu His Ser Lys Trp Gly Asn Arg Trp Ser Lys  
85 90 95

Ile Ala Gln Asn Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
100 105 110

Trp Arg Thr Arg Ile Gln Lys Gln Ala Arg His Leu Lys Ile Asp Thr  
115 120 125

Asp Thr Arg Glu Phe Gln Glu Leu Val Arg Arg Phe Trp Met Pro Arg  
130 135 140

Cys Phe Lys Lys Pro Lys Asn His Leu Leu Gln Pro Cys Gln Phe Lys  
145 150 155 160

Thr Arg Gln Leu Leu Cys Leu Leu Met Val Phe Leu Ser Ile Gln Leu  
165 170 175

Leu Gly Pro Tyr His His Ile His Thr Pro Leu Gly Arg Asp Leu Val  
180 185 190

<210> 51  
<211> 487  
<212> DNA  
<213> Glycine max

<220>  
<221> unsure  
<222> (358)

<220>  
<221> unsure  
<222> (429)

<400> 51  
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agatagagag agaaaaacga cctatatttt ttttccttg agagttcag gggcttagaa 120  
aattagaagg acagccacaa gtataaaggc ggtgaataa aagagaaaga caagaaggag 180  
acatggaaag accaccttg tgtgacaaag aagggtcaa gaaaggcct tggactcctg 240  
aagaagacat catattggc tcttatattc aggaacatgg tcctggaaat tggagggcag 300  
ttcctgccaa aacagggttgc acaagatgca gcaagagttg cagacttaga tggacgant 360  
acctgaggcc aggaatcaag cgtggtaact tcacaagaac aagaggagaa gatgataatc 420  
catttcang atcttttagg aaacagatgg ggtgcaatag cttcataacct tccacaaagg 480  
acaagg 487

<210> 52  
<211> 90  
<212> PRT  
<213> Glycine max

<220>  
<221> UNSURE  
<222> (59)

<220>  
<221> UNSURE  
<222> (72)

<220>  
<221> UNSURE  
<222> (83)

<400> 52  
Met Gly Arg Pro Pro Cys Cys Asp Lys Glu Gly Val Lys Lys Gly Pro  
1 5 10 15  
Trp Thr Pro Glu Glu Asp Ile Ile Leu Val Ser Tyr Ile Gln Glu His  
20 25 30  
Gly Pro Gly Asn Trp Arg Ala Val Pro Ala Lys Thr Gly Leu Ser Arg  
35 40 45  
Cys Ser Lys Ser Cys Arg Leu Arg Trp Thr Xaa Tyr Leu Arg Pro Gly  
50 55 60  
Ile Lys Arg Gly Asn Phe Thr Xaa Glu Gln Glu Glu Lys Met Ile Ile  
65 70 75 80  
His Leu Xaa Asp Leu Leu Gly Asn Arg Trp  
85 90

<210> 53  
<211> 1556  
<212> DNA  
<213> Glycine max

<400> 53  
gcacgaggag aaataaaaag agaagaaaga aaacacgata gtatcatcat atcaccacca 60  
cacacataga tagagagagg aaaacgacct atatTTTT tccttgaga gcttcagggg 120  
ctaggaaaat tagaaggaca gccacaagttaaaaggcgtt gaaataaaag agaaagacaa 180  
gaaggagaca tggaaagacc accttgttgcataaaggaaag gggtcaagaa agggccttgg 240  
actcctgaag aagacatcat attgggtgtct tatattcagg aacatggtcc tggaaattgg 300  
aggcagttc ctgccccaaac agggttgtca agatgcagca agagttgcag acttagatgg 360

acgaattacc	tgaggccagg	aatcaagcgt	ggttaacttca	cagaacaaga	ggagaagatg	420
ataatccatc	ttaaagatct	tttagaaac	agatgggctg	caatagcttc	ataccttcca	480
caaagaacag	acaatgacat	aaagaactat	tggaataccc	atttgagaaa	gaagctgaag	540
aagatgcaag	caggcggtga	aggtggtagc	tttggagaag	ggtttcagc	ctcaaggcaa	600
atccctagag	gccagtggga	aagaaggctc	caaactgata	tccaaatggc	aaagagagcc	660
ctcagtgaag	ctctttcacc	agagaaaaag	ccatcttgc	tatctgcctc	aaactcaaac	720
ccttcagata	gtagcagctc	cttcttcc	acaaaaaccaa	caacaacaca	atctgtgtc	780
tatgcatcaa	gtgctgacaa	catagctaga	atgctcaagg	gttggatgaa	gaacccacca	840
aagtcccaa	gaaccaactc	gtctatgact	cagaactcat	tcaacaactt	agcaggtgct	900
gatactgctt	gtagtagtgtt	agcaaaggga	ccactaagca	gtgccgaatt	gtctgagaat	960
aattttgaat	ccttgggttga	ttttgatcag	tctttggagt	cttcaaactc	tgtatcaattc	1020
tctcagtccct	tgtctccctga	ggccactgtt	ttgcaagatg	aaagcaagcc	tgatattaat	1080
attgctgcag	aaatttatgcc	cttcttttgc	cttgagaaat	ggctccctga	tgagggcaggt	1140
tgccaaagaga	aatttagttgg	ttgttgtgg	gatgccaagt	ttttctaagt	tgggttcatt	1200
tttgacata	tgagactgtt	ggattttttt	attttatttt	attttatttc	ataagttata	1260
ggtagggcct	catcaattaa	tctcgcttcg	gccttatttag	agagagaagt	tttccagcct	1320
ttgggtctag	acgtgtatat	gttaattatt	attgacat	tgatgattat	tatcatactg	1380
tgttagttgc	catacactgg	caaacttgct	tctttatgt	aaagttgatc	ttgcgacgag	1440
atccctgtttt	atggctttag	gcagcgcgac	cggtcttc	tctttgtgc	gcttgattag	1500
taaaaaaaaa	cgggggggggg	ccgggtccaa	atccccccca	atggggtcct	tttttag	1556

<210> 54

<211> 332

<212> PRT

<213> Glycine max

<400> 54

Met Gly Arg Pro Pro Cys Cys Asp Lys Glu Gly Val Lys Lys Gly Pro  
 1 5 10 15

Trp Thr Pro Glu Glu Asp Ile Ile Leu Val Ser Tyr Ile Gln Glu His  
20 25 30

Gly Pro Gly Asn Trp Arg Ala Val Pro Ala Lys Thr Gly Leu Ser Arg  
 35 40 45

Cys Ser Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Gly  
50 55 60

Ile Lys Arg Gly Asn Phe Thr Glu Gln Glu Glu Lys Met Ile Ile His  
65 70 75 80

Leu Gln Asp Leu Leu Gly Asn Arg Trp Ala Ala Ile Ala Ser Tyr Leu  
85 90 95

Pro Gln Arg Thr Asp Asn Asp Ile Lys Asn Tyr Trp Asn Thr His Leu  
100 105 110

Arg Lys Lys Leu Lys Lys Met Gln Ala Gly Gly Glu Gly Gly Ser Phe  
115 120 125

Gly Glu Gly Phe Ser Ala Ser Arg Gln Ile Pro Arg Gly Gln Trp Glu  
130 135 140

Arg Arg Leu Gln Thr Asp Ile Gln Met Ala Lys Arg Ala Leu Ser Glu  
145 150 155 160

Ala Leu Ser Pro Glu Lys Lys Pro Ser Cys Leu Ser Ala Ser Asn Ser  
165 170 175

Asn Pro Ser Asp Ser Ser Ser Phe Ser Ser Thr Lys Pro Thr Thr  
180 185 190

Thr Gln Ser Val Cys Tyr Ala Ser Ser Ala Asp Asn Ile Ala Arg Met  
195 200 205

Leu Lys Gly Trp Met Lys Asn Pro Pro Lys Ser Ser Arg Thr Asn Ser  
210 215 220

Ser Met Thr Gln Asn Ser Phe Asn Asn Leu Ala Gly Ala Asp Thr Ala  
225 230 235 240

Cys Ser Ser Gly Ala Lys Gly Pro Leu Ser Ser Ala Glu Leu Ser Glu  
245 250 255

Asn Asn Phe Glu Ser Leu Phe Asp Phe Asp Gln Ser Leu Glu Ser Ser  
260 265 270

Asn Ser Asp Gln Phe Ser Gln Ser Leu Ser Pro Glu Ala Thr Val Leu  
275 280 285

Gln Asp Glu Ser Lys Pro Asp Ile Asn Ile Ala Ala Glu Ile Met Pro  
290 295 300

Phe Ser Leu Leu Glu Lys Trp Leu Leu Asp Glu Ala Gly Cys Gln Glu  
305 310 315 320

Lys Leu Val Gly Cys Cys Gly Asp Ala Lys Phe Phe  
325 330

<210> 55

<211> 357

<212> DNA

<213> Triticum aestivum

<220>

<221> unsure

<222> (259)

<220>

<221> unsure

<222> (307)

<220>

<221> unsure

<222> (319)

<400> 55

gccaaagtat caggttttag ggggtggggta tccaaaaatt aggtagctat attgaagtat 60  
tttgcgcaaa gtcgcaacaa caaatgtcac ctggctaat aactttcttc ttgcttcaac 120  
ctctgtatac tccatgcagg cctcaaccgc acaggaaaga gctgtcgct ccgggtgggtt 180  
aactacctcc accctgggcc taaagcgtgg ggcgtact ccccatgaaa gaacgcctca 240  
tcctccaact ccatgctcng tggggaaaca agtggtccaa ggataaacacg gaactgccaa 300  
ggcgtancga caatgaatna aagaactact gggagaacac atttgaggaa aaggaag 357

<210> 56

<211> 54

<212> PRT

<213> Triticum aestivum

<220>  
<221> UNSURE  
<222> (21)

<220>  
<221> UNSURE  
<222> (27) .. (28)

<220>  
<221> UNSURE  
<222> (41)

<400> 56

Ala Gly Leu Asn Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Val Asn  
1 5 10 15

Tyr Leu His Pro Xaa Leu Lys Arg Gly Arg Xaa Xaa Pro Met Lys Glu  
20 25 30

Arg Leu Ile Leu Gln Leu His Ala Xaa Trp Gly Asn Lys Trp Ser Lys  
35 40 45

Asp Asn Thr Glu Leu Pro  
50

<210> 57

<211> 1072

<212> DNA

<213> Triticum aestivum

<400> 57

gcacgaggcc aaagtatcag gtttggggatcc aaaaatttagg tagcttatatt 60  
gaagtatccc gcgcaagtc gcaacaacaa atgtcacctt tgctaataac tttcttcttg 120  
cttcaaccc tcgtaatctcc atgcaggcct caaccgcaca ggaaagagct gtcgcctccg 180  
gtgggttaac tacctccacc ctggcctaaa gcgtgggcgc atgactcccc atgaagaacg 240  
cctcatcctc gagctccatg ctcgggtggg aaacaggtgg tccaggatag cacggaagct 300  
gccagggcgt accgacaatg agatcaagaa ctactggaga acacatatga ggaagaaacg 360  
acaggagagg aagaggagcg tgcaccctc accatctca tcctcagtga cataccaatc 420  
cattcagcca cagacgccc catgatcatggg aattggcgag cagaacttc atgggtggcag 480  
tagctgcattc acaaggcatat tgaaggcac gcctgctgac atggatggat acctcatgga 540  
tcagatatgg atggagattt aggccaccctc tggggtcaac ttccatgacg ggaaggataa 600  
ttcatacagc agccctctg gccctctgct gccatcacccg atgtgggatt actacagccc 660  
tgaggcaggc tggaaagatgg atgagataaa gatggccca caagttagct acagtaaagg 720  
aattggccca agttattgaa gccatatata ttgtatcaga ttactaagtt acttgcaacc 780  
tagcagaagt gaaatgcattt tggtaaaaga accattagca tggatctaaa aaatatttat 840  
atctatcttag cattccaagt gtgctcatgt tttatgtatc tactatgttag catctagtgt 900  
gcaagacatg taatgcaagg acacttccac tttgtattca caataatcag ctatccctg 960  
taagactttt ccaatgcaaa catgattagc aggtgtataa tcaacttaaa tgcttgccaa 1020  
aaaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 1072

<210> 58

<211> 198

<212> PRT

<213> Triticum aestivum

<400> 58

Ala Gly Leu Asn Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Val Asn  
1 5 10 15

Tyr Leu His Pro Gly Leu Lys Arg Gly Arg Met Thr Pro His Glu Glu  
           20                 25                 30

Arg Leu Ile Leu Glu Leu His Ala Arg Trp Gly Asn Arg Trp Ser Arg  
           35                 40                 45

Ile Ala Arg Lys Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Tyr  
       50                 55                 60

Trp Arg Thr His Met Arg Lys Lys Ala Gln Glu Arg Lys Arg Ser Val  
    65                 70                 75                 80

Ser Pro Ser Pro Ser Ser Ser Val Thr Tyr Gln Ser Ile Gln Pro  
    85                 90                 95

Gln Thr Pro Ser Ile Met Gly Ile Gly Glu Gln Glu Leu His Gly Gly  
   100                 105                 110

Ser Ser Cys Ile Thr Ser Ile Leu Lys Gly Thr Pro Ala Asp Met Asp  
   115                 120                 125

Gly Tyr Leu Met Asp Gln Ile Trp Met Glu Ile Glu Ala Pro Ser Gly  
   130                 135                 140

Val Asn Phe His Asp Gly Lys Asp Asn Ser Tyr Ser Ser Pro Ser Gly  
   145                 150                 155                 160

Pro Leu Leu Pro Ser Pro Met Trp Asp Tyr Tyr Ser Pro Glu Ala Gly  
   165                 170                 175

Trp Lys Met Asp Glu Ile Lys Met Ala Pro Gln Val Ser Tyr Ser Lys  
   180                 185                 190

Gly Ile Gly Pro Ser Tyr  
   195

<210> 59  
 <211> 521  
 <212> DNA  
 <213> Triticum aestivum

<220>  
 <221> unsure  
 <222> (108)

<220>  
 <221> unsure  
 <222> (355)

<220>  
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<220>  
 <221> unsure  
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<220>  
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 <222> (414)

<220>  
 <221> unsure  
 <222> (431)

<220>  
 <221> unsure  
 <222> (434)

<220>  
 <221> unsure  
 <222> (447)

<220>  
 <221> unsure  
 <222> (456)

<220>  
 <221> unsure  
 <222> (459)

<400> 59  
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 cagcatggcg gcggagccgg aggaggaggc ggaccggagg aggaggcngg agctccggcg 120  
 agggccgtgg acggtggacg aggaccttac gctgatcaac tacatcgccg accacggcga 180  
 gggccgtgg aacgcgtgg cgccggccgc cggcctgagg cgcacgggga agagctgccg 240  
 gctgcggctgg ctgaactacc tccgccccga cgtgaagcgc ggcaacttca ccgcccacga 300  
 gcagctcctc atcctcgacc tccactctcg ctggggcaac cggtggtcga agatngcgc 360  
 ncacctccc ggtcgacgg acaacgaaga taaaagaact actgggagga ccanggtgca 420  
 aaaagcacgc naancaactc aactgcnaac tccggnnaanc gcaaccttta aaggatgcc 480  
 ataaggatacc tctggatgcc tcgcctctca acgcataaac c 521

<210> 60  
 <211> 131  
 <212> PRT  
 <213> Triticum aestivum

<220>  
 <221> UNSURE  
 <222> (27)

<220>  
 <221> UNSURE  
 <222> (109)

<220>  
 <221> UNSURE  
 <222> (111)

<220>  
 <221> UNSURE  
 <222> (122)

<220>  
 <221> UNSURE  
 <222> (129)

<400> 60  
 Met Asp Val Val Leu Gln Ser Arg Ser Ser Asn Ser Met Ala Ala Glu  
 1 5 10 15

Pro Glu Glu Glu Ala Asp Arg Arg Arg Arg Xaa Glu Leu Arg Arg Gly  
20 25 30

Pro Trp Thr Val Asp Glu Asp Leu Thr Leu Ile Asn Tyr Ile Ala Asp  
35 40 45

His Gly Glu Gly Arg Trp Asn Ala Leu Ala Arg Ala Ala Gly Leu Arg  
50 55 60

Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg Pro  
65 70 75 80

Asp Val Lys Arg Gly Asn Phe Thr Ala Asp Glu Gln Leu Leu Ile Leu  
85 90 95

Asp Leu His Ser Arg Trp Gly Asn Arg Trp Ser Lys Xaa Ala Xaa His  
100 105 110

Leu Pro Gly Arg Thr Asp Asn Glu Asp Xaa Arg Thr Thr Gly Arg Thr  
115 120 125

Xaa Val Gln  
130

<210> 61  
<211> 464  
<212> DNA  
<213> Triticum aestivum

<220>  
<221> unsure  
<222> (435)

<220>  
<221> unsure  
<222> (442)

<220>  
<221> unsure  
<222> (450)

<220>  
<221> unsure  
<222> (457)

<400> 61  
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ggcccttggc cgccggagga ggacctcggt ctcgtctcct acgtccagga gcacggcccc 120  
ggcaactggc gcgcgtccc caccaggacc ggcctgtatgc ggtgttagcaa gagctgccgg 180  
ctccgttggc ccaactacct gcgcaggagg atcaagcgcg gcaacttcac cgaccaggag 240  
gagaagctca tcgtccacct ccaggcgctg ctcggcaaca ggtgggcccgc gatcgctcc 300  
tacctccccg agcgcaccca caacgacatc aagaactact ggaacacgca actcaagcgc 360  
aagctgcaag cggggggcga cgccgcggc aaaccggcgg cgcaaaggct gctcctcc 420  
aaaggcaat ggganaggcg gngcagacgn catcaanatg cgcc 464

<210> 62  
<211> 122  
<212> PRT  
<213> Triticum aestivum

<400> 62

Met Gly Arg Pro Pro Cys Cys Asp Lys Glu Gly Val Lys Lys Gly Pro  
1 5 10 15

Trp Thr Pro Glu Glu Asp Leu Val Leu Val Ser Tyr Val Gln Glu His  
20 25 30

Gly Pro Gly Asn Trp Arg Ala Val Pro Thr Arg Thr Gly Leu Met Arg  
35 40 45

Cys Ser Lys Ser Cys Arg Leu Arg Trp Thr Asn Tyr Leu Arg Pro Gly  
50 55 60

Ile Lys Arg Gly Asn Phe Thr Asp Gln Glu Glu Lys Leu Ile Val His  
65 70 75 80

Leu Gln Ala Leu Leu Gly Asn Arg Trp Ala Ala Ile Ala Ser Tyr Leu  
85 90 95

Pro Glu Arg Thr Asp Asn Asp Ile Lys Asn Tyr Trp Asn Thr Gln Leu  
100 105 110

Lys Arg Lys Leu Gln Ala Gly Gly Asp Ala  
115 120

<210> 63

<211> 217

<212> PRT

<213> Pisum sativum

<400> 63

Met Asp Lys Lys Pro Cys Asn Ser Ser Gln Asp Pro Glu Val Arg Lys  
1 5 10 15

Gly Pro Trp Thr Met Glu Glu Asp Leu Ile Leu Ile Asn Tyr Ile Ala  
20 25 30

Asn His Gly Glu Gly Val Trp Asn Ser Leu Ala Lys Ala Ala Gly Leu  
35 40 45

Lys Arg Thr Gly Lys Ser Cys Arg Leu Arg Trp Leu Asn Tyr Leu Arg  
50 55 60

Pro Asp Val Arg Arg Gly Asn Ile Thr Pro Glu Glu Gln Leu Leu Ile  
65 70 75 80

Met Glu Leu His Ser Lys Trp Gly Asn Arg Trp Ser Lys Ile Ala Lys  
85 90 95

His Leu Pro Gly Arg Thr Asp Asn Glu Ile Lys Asn Phe Trp Arg Thr  
100 105 110

Arg Ile Gln Lys His Ile Lys Gln Val Asp Asn Pro Asn Gln Gln Asn  
115 120 125

Phe Gln Gln Lys Met Ser Leu Glu Ile Asn Asp His His His His His  
130 135 140

Pro His Gln Pro Ser Ser Ser Gln Val Ser Asn Leu Val Glu Pro Met  
145 150 155 160

Glu Thr Tyr Ser Pro Thr Ser Tyr Gln Gly Thr Leu Glu Pro Phe Pro  
165 170 175

Thr Gln Phe Pro Thr Ile Asn Asn Asp His His Gln Asn Ser Asn Cys  
180 185 190

Cys Ala Asn Asp Asn Asn Asn Asn Tyr Trp Ser Met Glu Asp Ile  
195 200 205

Trp Ser Met Gln Leu Leu Asn Gly Asp  
210 215